

# INSTALLATION INSTRUCTIONS



# UNLEASH.

THE SMARTEST PERFORMANCE TUNING TECHNOLOGY

## ZFi TC

FUEL + QUICKSHIFT + TRACTION CONTROL

**KAWASAKI Z800 2013  
T491S, T491R**

## 1 > READ

### WARNINGS > INSTALLING



- We strongly suggest that an experienced technician install this product.
- Read through all instructions before beginning installation.
- This document is intended for use by qualified technicians.
- This is not a replacement for the factory Engine Control Unit (ECU).
- Refer to a factory service manual for more specific stock component identification/location information and removal/assembly procedures.

### WARNINGS > USING



- Use only in race or other closed-course applications and never on public roads.
- Z-Fi products are not certified by the California Air Resource Board (CARB) for use on CA public lands.

### GETTING HELP



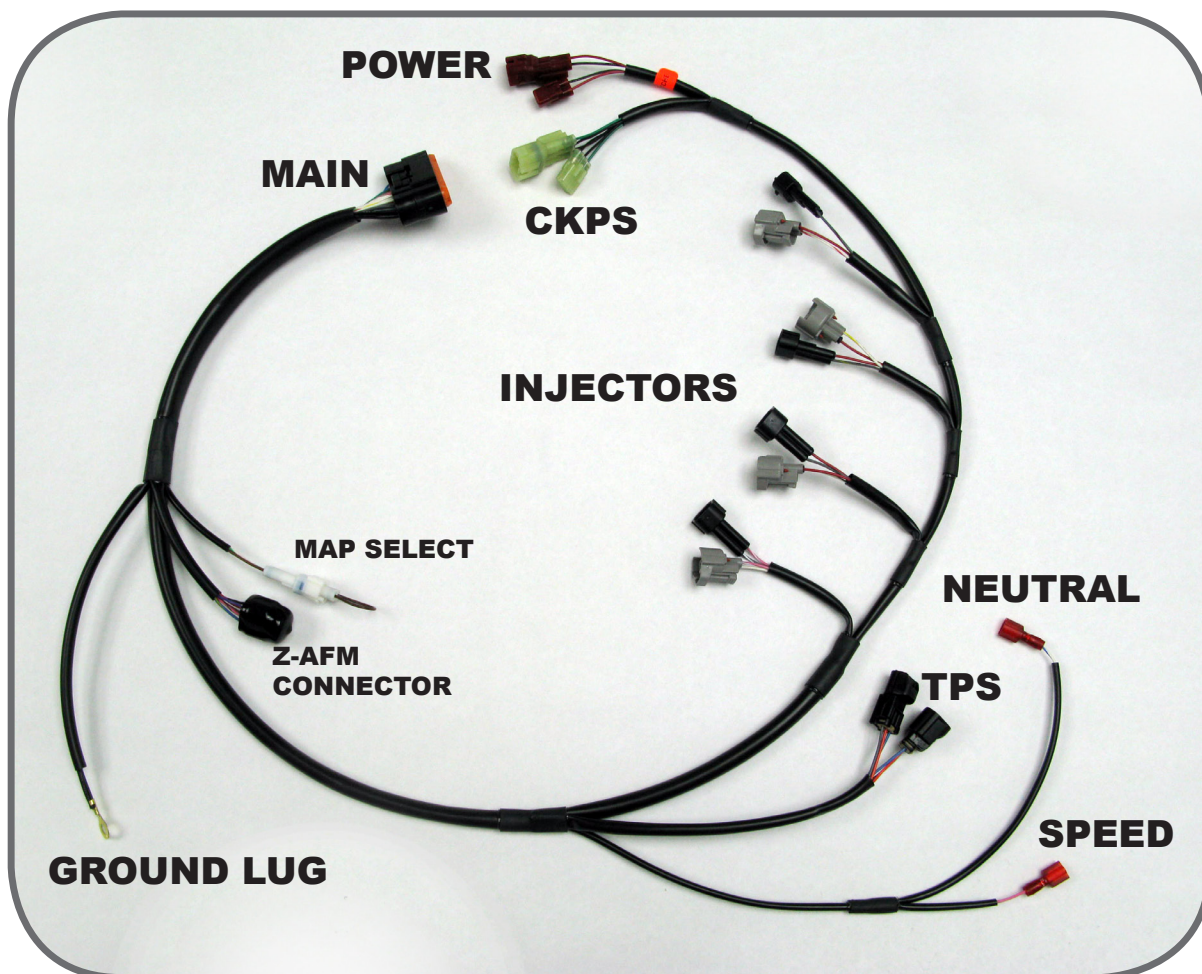
- Factory support is available in the US at 909-597-8300.
- For fastest support outside of the US, find your local importer at [bazzaz.net](http://bazzaz.net).

# 2>IDENTIFY

## INCLUDED PARTS

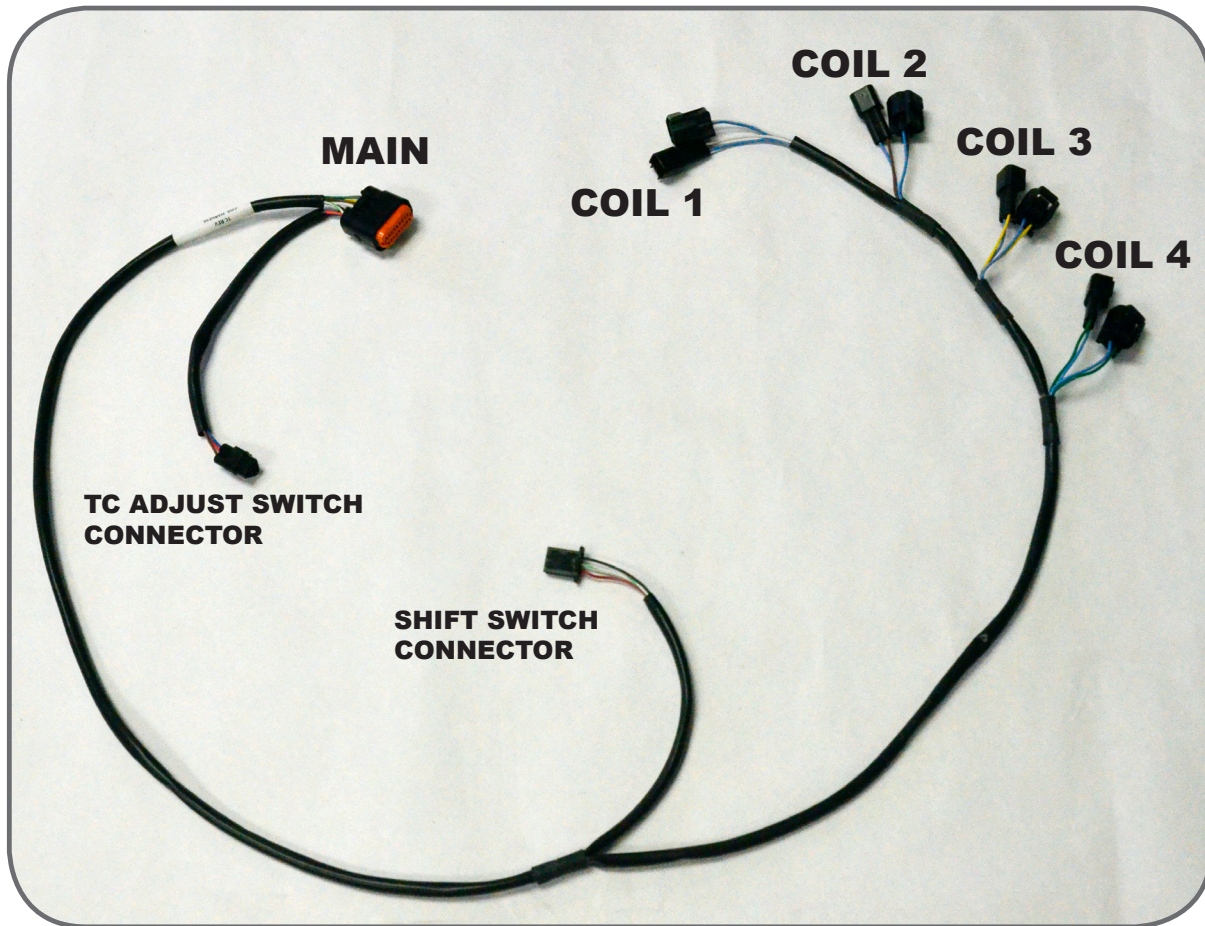
1. Z-Fi TC control unit
2. Fuel harness
3. Coil harness
4. Shift Switch and mounting hardware
5. USB cable
6. O2 eliminator
7. Scotchlok (2)
8. Zip ties
9. Velcro

## FUEL HARNESS



# 2>IDENTIFY (CONT.)

## COIL HARNESS



## **3>REMOVE**

1. Seats
2. Fuel tank
3. Side panels

## **4>SECURE**

1. Mount the control unit in the tail section of the motorcycle.

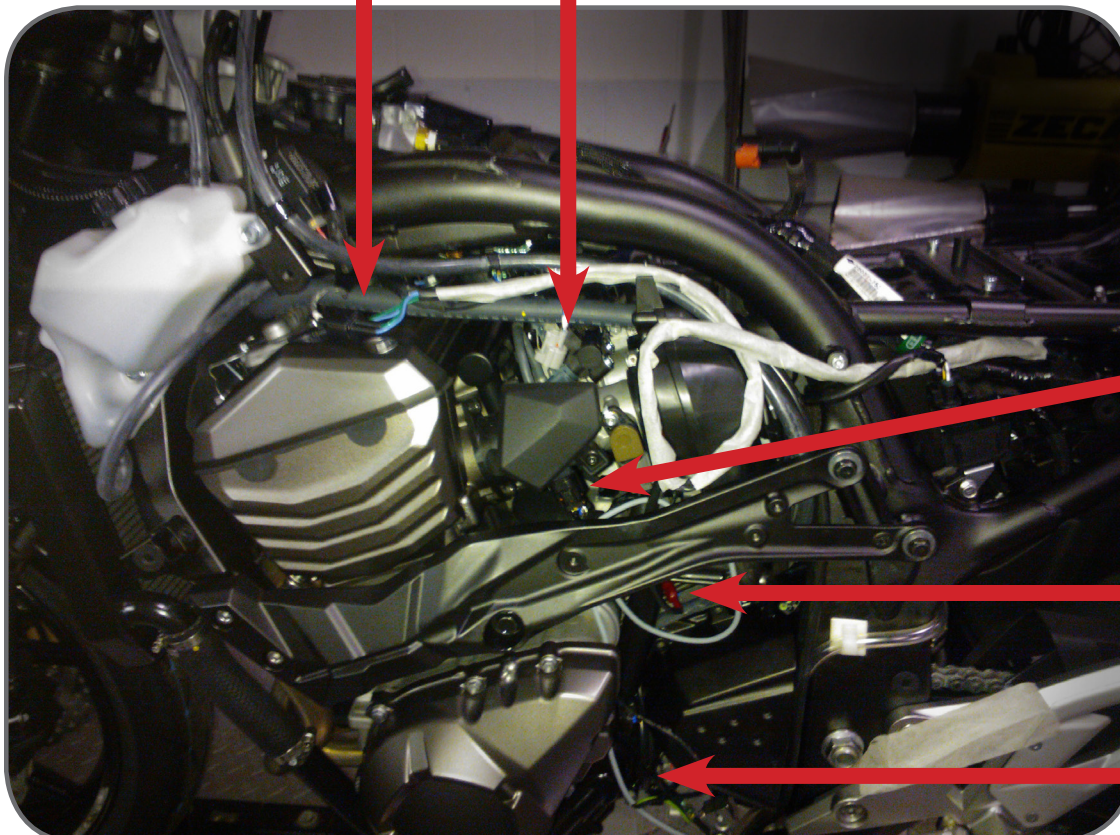
# 5 > CONNECT



## 5.1

1. Connect the main connector of the Bazzaz fuel harness to the control unit.
2. Begin to route the harness forward, on the left side of the motorcycle.

**COILS INJECTORS**



**TPS**

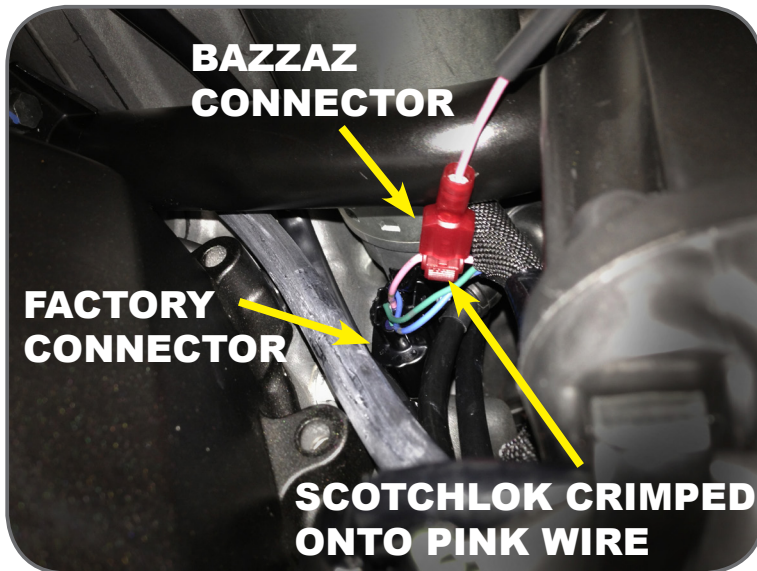
**SPEED**

**NEUTRAL**

# 5>CONNECT (CONT.)

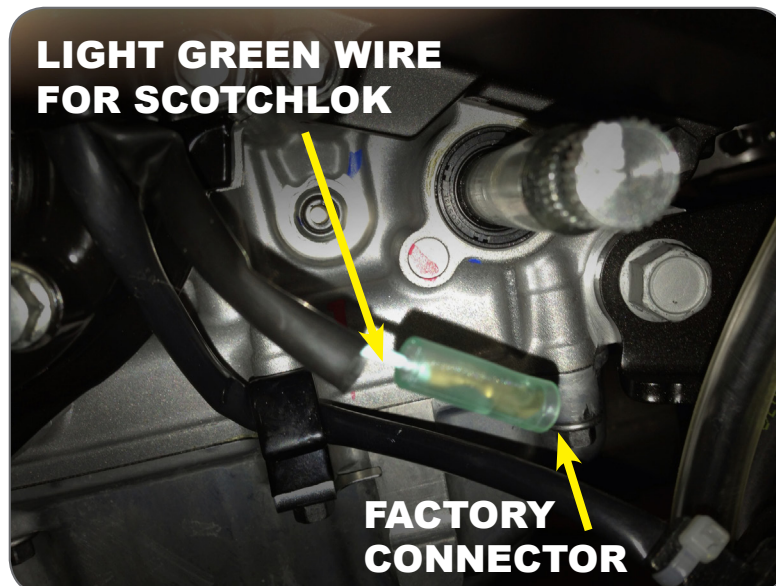
## 5.2

1. Locate the factory speed sensor, found above the front sprocket cover.
2. Crimp a supplied Scotchlok onto the **pink** wire of the factory speed sensor connector.
3. Insert the Bazzaz speed connector into the Scotchlok.



## 5.3

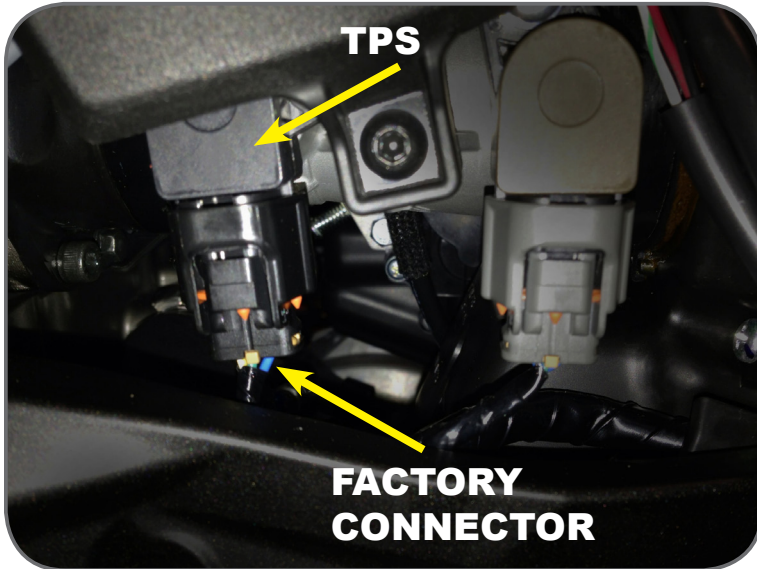
1. Locate the factory neutral sensor, found below the front sprocket cover.
2. Crimp a supplied Scotchlok onto the **light green** wire of the factory neutral connector.
3. Insert the Bazzaz neutral connector in the Scotchlok (not shown in photo below).



# 5>CONNECT (CONT.)

## 5.4

1. Locate the black factory Throttle Position Sensor (TPS), found on the left side of the throttle bodies.
3. Disconnect the factory TPS connector from the sensor.
4. Connect the Bazzaz TPS connectors in-line, between the factory connector and sensor.



*Photo shown is a 'before' image. The disconnect and reconnection of the Bazzaz connectors plugged in-line is not shown.*

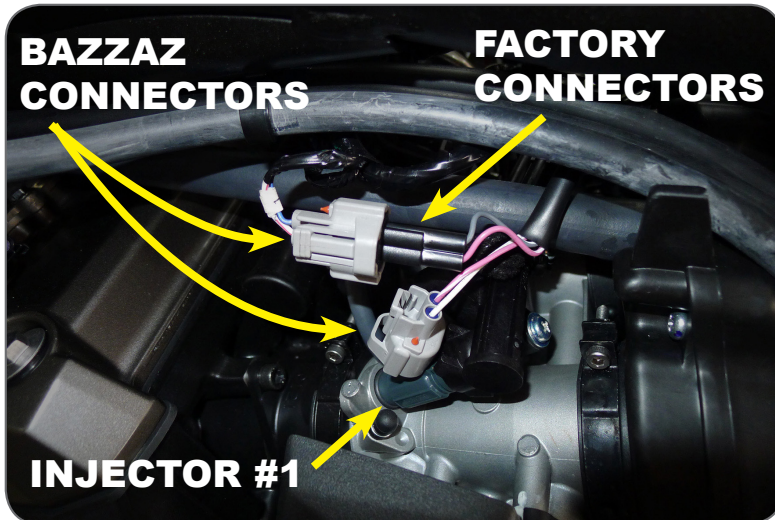
# 6>GROUND

1. Attach the Bazzaz ground lug to a suitable chassis ground.

# 7>CONNECT

## 7.1

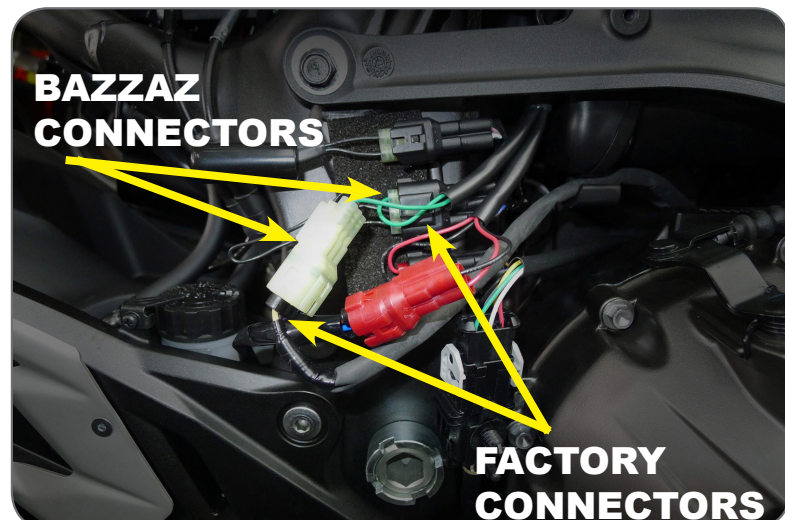
1. Locate the factory injectors.
2. From left to right, disconnect the factory injector connectors from each injector.
3. Connect the Bazzaz injector connectors in-line, between the factory connectors and injectors.



*Photo shown is the installation on injector #1. Continue procedure on injectors #2 through 4.*

## 7.2

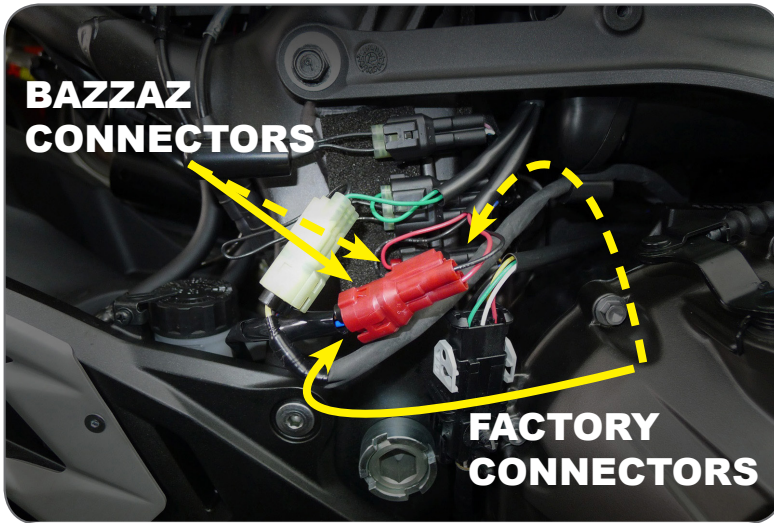
1. Route the remaining portion of the Bazzaz harness down to the right side of the motorcycle.
2. Find the location where the factory O2 sensor connector, Crank Position Sensor (CKPS) connectors, and brake light switch connectors are secured to the frame.
3. Disconnect the factory CKPS connectors.
4. Connect the Bazzaz CKPS connectors in-line with the factory CKPS connectors.





# 7>CONNECT (CONT.)

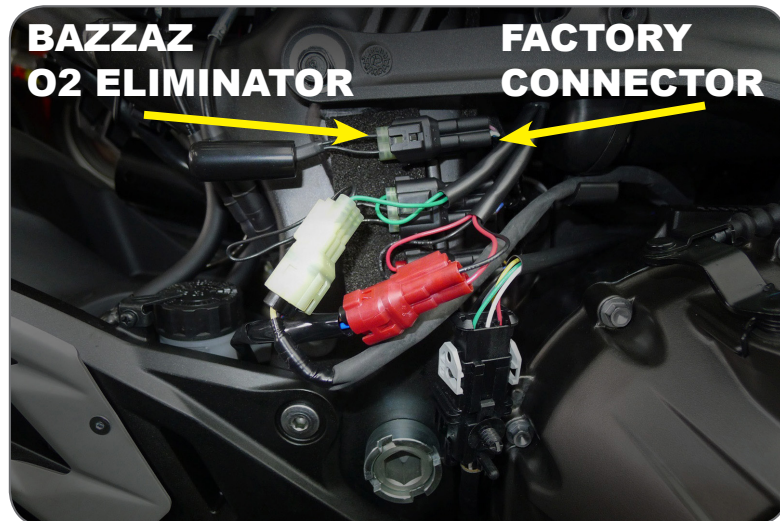
## 7.3



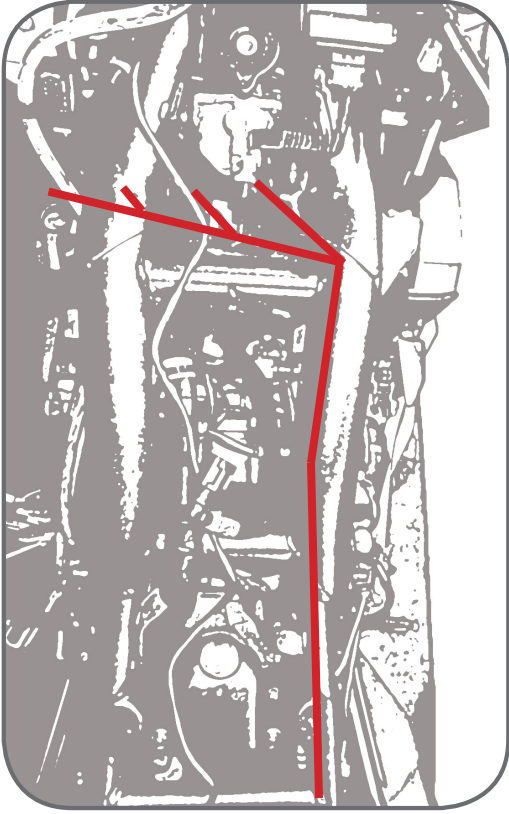
1. Disconnect the factory brake light connectors.
2. Connect the Bazzaz +12V switched power connectors in-line with the factory brake light switch connectors.

# 8>O2 SENSOR

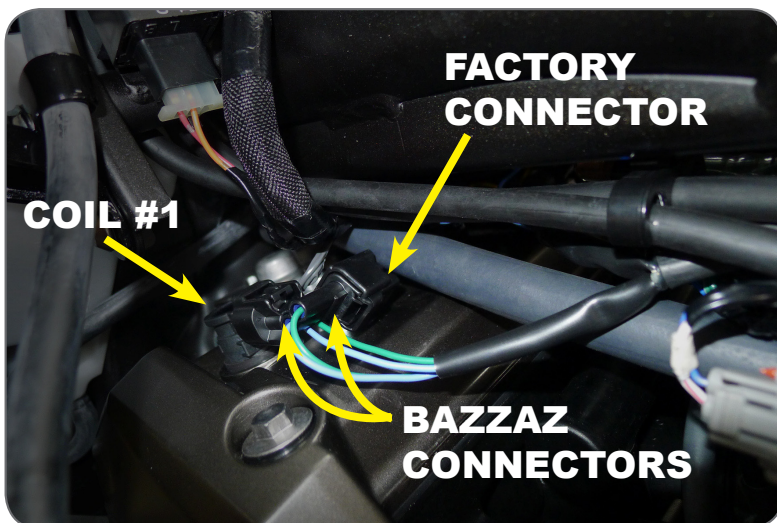
1. Disconnect the O2 sensor connector from the factory harness, as it will no longer be used.
2. The wires should be neatly secured away from any moving components, or the sensor may be removed and the remaining port / bung in the exhaust can then be plugged.
3. Connect the Bazzaz O2 eliminator in place of the factory sensor connector.



# 9>CONNECT COIL HARNESS



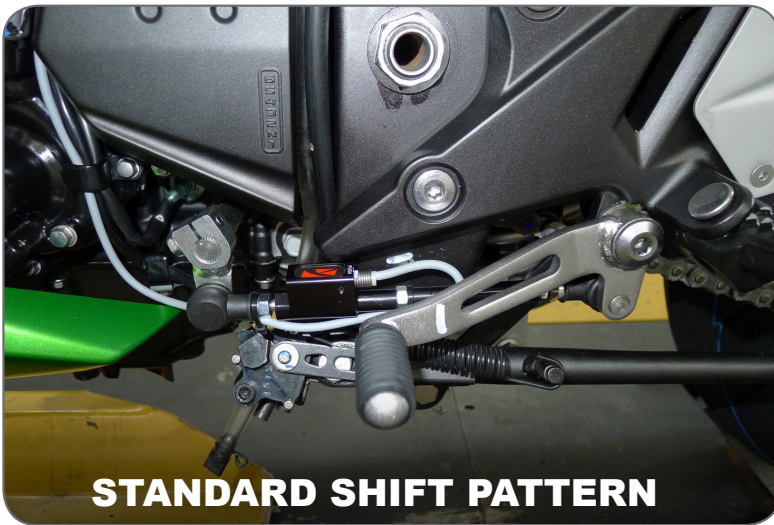
1. Connect the main connector of the Bazzaz coil harness to the control unit.
2. Route the harness up the right side of the motorcycle.
3. Locate the factory coils.
4. From right to left, disconnect the factory coil connectors from each coil.
5. Connect the Bazzaz coil connectors in-line between the factory connectors and coils.



*Photo shown is the installation on coil #1.  
Continue procedure on coils #2 through 4.*

# 10>QUICKSHIFT

1. Remove the factory shift rod from the motorcycle's shift linkage.
2. Install the supplied shift switch onto the heim joint, connected to the shift shaft of the engine.
3. Install the supplied shift rod between the shift switch and rear heim joint, connected to the rear set.
4. Adjust the foot pedal to the preferred height and secure components by tightening the 10mm nuts (Bazzaz shift rods are manufactured to fit multiple applications and can be cut at 10mm intervals on either end to shorten for proper positioning).
5. Route the Bazzaz shift switch connector to the mating connector of the Bazzaz coil harness and plug in-line.



# 11>SECURE



Use the supplied cable ties to secure the harness neatly along the routing path **free of any moving or hot components** (which could cause damage or failure of the system).

# 12>CHECK



1. In order to check that the system is installed correctly, download the Bazzaz Z-Fi Mapper software at [bazzaz.net](http://bazzaz.net).
2. Plug the USB cable into the control unit and computer.
3. Locate and open the Z-Fi Mapper software.
4. Check that the pre-programmed map matches the model of your bike on the fuel map page within the software. You can switch from map 1 to map 2 by unplugging the map select jumper on the Bazzaz fuel harness. Map 1 will be pre-programmed; depending on your model, there may be a pre-programmed map in the map 2 slot. If map 2 is blank, stock ECU settings are used. Make sure that the jumper is left plugged in or unplugged, depending on which map you choose.
5. Start the vehicle and begin to check that the following inputs read correctly on the fuel map page.
  - RPM - Make sure that the RPM is reading near what the vehicle is idling at.
  - GPS - The vehicle should read neutral (or whichever gear it is in). For motorcycles that use a Gear Position Sensor, the bike does not need to be running to do this. For motorcycles that use a speed sensor, the wheel must be spinning to read gear properly. This can be checked on a dynamometer or by using a rear stand. Use caution when testing componentry.
  - TPS - When throttle is applied, the TPS should read accordingly. Fly-by-wire models must be running to check TPS. Normal cable operated throttles can be checked with just the key on, not running.

## Also use software to:

- View and/or make adjustments to fuel maps
- Activate Z-AFM self mapper (sold separately)
- Save and load new fuel maps
- Re-calibrate throttle position sensor after throttle modifications
- View diagnostics for troubleshooting
- Change quickshift settings
- Make traction control adjustments



If any problem is found, please carefully follow through the installation steps again.



If problem still persists, please contact Bazzaz tech support

- Factory support is available in the US at 909-597-8300.
- For fastest support outside of the US, find your local importer at [bazzaz.net](http://bazzaz.net)

## 13>REINSTALL

After it is determined that everything is correct, reinstall the components removed in step 3.

## 14>USE



**MAP 1**



**MAP 2**

### MAPS

The Bazzaz controller is capable of storing two maps.

Switch maps by connecting or disconnecting the map select jumper supplied with the kit.

Or use the optional handlebar-mounted switch to switch maps on the fly (sold separately).

# 15>NEXT LEVEL

## MAP SELECT SWITCH

Purchased separately.

**79.95**

Switch maps on the fly with this handlebar-mounted switch. Weatherproof toggle and easy installation.



## ZAFM SELF MAPPER

Purchased separately.

Build race-level fuel maps for your specific modifications, fuel type, engine, and atmospheric conditions simply while riding.

O2 sensor mounts into exhaust and control box easily plugs in to any Bazzaz Z-Fi product.

**299.95**

# MAP SELECT/ TC ADJUST SWITCH

Purchased separately.

**129.95**

Switch maps on the fly with this handlebar-mounted switch. Quickly adjust traction control settings using a 10-point dial. Weatherproof toggle and easy installation.



## TC ACTIVE LIGHT

Purchased separately.

Illuminates when traction control is engaged. Helpful in determining when and where traction control is being actuated.

**79.95**



**THE SMARTEST PERFORMANCE TUNING TECHNOLOGY**



Proudly made in the  
**United States**

**S491S, S491R, T491S, T491R**